

## CLAIMS

What is claimed is:

1. A performance-enhancing method of accessing file system  
5 objects comprising the steps of:

determining a plurality of file system objects that are  
frequently being accessed, each file system object  
having a pathname and an inode number, the inode number  
10 for locating the file system object on a storage  
system;

entering the pathname of each file system object into a  
memory system; and

15 cross-referencing the pathname of each file system  
object in the memory system with its inode number  
thereby enabling the inode number to be obtained with  
one memory access.

20 2. The performance-enhancing method of Claim 1 wherein a  
pathname is entered into the memory system when a file  
system containing the file system object is mounted  
onto the system.

25 3. The performance-enhancing method of Claim 2 wherein the  
determining step includes the step of obtaining from an  
extended attribute file a list of pathnames to be  
entered into the memory system, the extended attribute  
30 file being associated with the mounted file system.

4. The performance-enhancing method of Claim 2 wherein the determining step includes the step of obtaining a pathname from a user.
- 5 5. The performance-enhancing method of Claim 2 wherein the determining step includes the step of monitoring accesses to a file system object within a certain time span.
- 10 6. The performance-enhancing method of Claim 2 wherein a pathname of a file system object and its cross-referenced inode number are removed from the memory system when the file system containing the file system object is unmounted.
- 15 7. The performance-enhancing method of Claim 2 wherein a pathname of a file system object and its cross-referenced inode number is removed from the memory system when a user so ordered.
- 20 8. A computer program on a computer readable medium for enhancing performance of a system when file system objects are being accessed comprising:
- 25 code means for determining a plurality of file system objects that are frequently being accessed, each file system object having a pathname and an inode number, the inode number for locating the file system object on a storage system;
- 30 code means for entering the pathname of each file system object into a memory system; and

code means for cross-referencing the pathname of each  
file system object in the memory system with its i-node  
number thereby allowing the inode number to be obtained  
5 with one memory access.

9. The computer program of Claim 8 wherein a pathname is  
entered into the memory system when a file system  
containing the file system object is mounted onto the  
10 system.

10. The computer program of Claim 8 wherein the determining  
code means includes code means for obtaining from an  
extended attribute file a list of pathnames to be  
15 entered into the memory system, the extended attribute  
file being associated with the mounted file system.

11. The computer program of Claim 8 wherein the determining  
code means includes code means for obtaining a pathname  
20 from a user.

12. The computer program of Claim 8 wherein the determining  
code means includes code means for monitoring accesses  
to a file system object within a certain time span.  
25

13. The computer program of Claim 8 wherein a pathname of a  
file system object and its cross-referenced inode  
number are removed from the memory system when the file  
system containing the file system object is unmounted.  
30

14. The computer program of Claim 8 wherein a pathname of a  
file system object and its cross-referenced inode

number is removed from the memory system when a user so ordered.

15. A system comprising:

5

at least one storage system for storing code data; and

10 at least one processor for processing the code data to determine a plurality of file system objects that are frequently being accessed, each file system object having a pathname and an inode number, the inode number for locating the file system object on a storage system, to enter the pathname of each file system object into a memory system, and to cross-reference the  
15 pathname of each file system object in the memory system with its inode number thereby allowing the inode number to be obtained with one memory access.

16. The system of Claim 15 wherein a pathname is entered  
20 into the memory system when a file system containing the file system object is mounted onto the system.

17. The system of Claim 15 wherein the code data is further  
25 processed to obtain from an extended attribute file a list of pathnames to be entered into the memory system, the extended attribute file being associated with the mounted file system.

18. The system of Claim 15 wherein the code data is further  
30 processed to obtain a pathname from a user.

19. The system of Claim 15 wherein the code data is further processed to monitor accesses to a file system object within a certain time span.

- 5 20. The system of Claim 15 wherein a pathname of a file system object and its cross-referenced inode number are removed from the memory system when the file system containing the file system object is unmounted.